



SEQUENCE LISTING

<110> Cahoon, Rebecca E.
Vollmer, Steven J.

<120> Chromatin Associated Proteins

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<140> US 09/720,529

<141> 2000-12-20

<150> US 60/092,841

<151> 1998-07-14

<150> PCT/US99/15807

<151> 1999-07-13

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<213> Oryza sativa

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RECEIVED

FEB 19 2003

TECH CENTER 1600/2900

B4

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27

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 Asp Arg Asp Leu Cys Arg Phe His Ala Asp Asp Tyr Val Ala Phe Leu
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 Arg Ser Val Thr Pro Glu Thr Gln Gln Asp Gln Ile Arg Ala Leu Lys
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 85 90 95
 Phe Cys Gln Thr Tyr Ala Gly Gly Ser Val Gly Gly Ala Val Lys Leu
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 Asn His Gly His Asp Ile Ala Ile Asn Trp Ala Gly Gly Leu His His
 115 120 125
 Ala Lys Lys Cys Glu Ala Ser Gly Phe Cys Tyr Val Asn Asp Ile Val
 130 135 140
 Leu Ala Ile Leu Glu Leu Leu Lys Tyr His Gln Arg Val Leu Tyr Val
 145 150 155 160
 Asp Ile Asp Ile His His Gly Asp Gly Val Glu Glu Ala Phe Tyr Thr
 165 170 175
 Thr Asp Arg Val Met Thr Val Ser Phe His Lys Phe Gly Asp Tyr Phe
 180 185 190
 Pro Gly Thr Gly Asp Ile Arg Asp Ile Gly His Ser Lys Gly Lys Tyr
 195 200 205
 Tyr Ser Leu Asn Val Pro Leu Asp Asp Gly Ile Asp Asp Glu Ser Tyr
 210 215 220
 Gln Ser Leu Phe Lys Pro Ile Met Gly Lys Val Met Glu Val Phe Arg
 225 230 235 240
 Pro Gly Ala Val Val Leu Gln Cys Gly Ala Asp Ser Leu Ser Gly Asp
 245 250 255
 Arg Leu Gly Cys Phe Asn Leu Ser Ile Arg Gly His Ala Glu Cys Val
 260 265 270

Arg Phe Met Arg Ser Phe Asn Val Pro Leu Leu Leu Leu Gly Gly Gly
 275 280 285
 Gly Tyr Thr Ile Arg Asn Val Ala Arg Cys Trp Cys Tyr Glu Thr Gly
 290 295 300
 Val Ala Leu Gly His Glu Leu Thr Asp Lys Met Pro Pro Asn Glu Tyr
 305 310 315 320
 Phe Glu Tyr Phe Gly Pro Asp Tyr Thr Leu His Val Ala Pro Ser Asn
 325 330 335
 Met Glu Asn Lys Asn Thr Arg Gln Gln Leu Asp Asp Ile Arg Ser Arg
 340 345 350
 Leu Leu Asp Asn Leu Ser Lys Leu Arg His Ala Pro Ser Val Gln Phe
 355 360 365
 Gln Glu Arg Pro Pro Glu Ala Glu Leu Pro Glu Gln Asp Glu Asp Gln
 370 375 380
 Glu Asp Pro Asp Glu Arg His His Ala Asp Ser Asp Val Glu Met Asp
 385 390 395 400
 Asp Val Lys Pro Leu Asp Asp Ser Gly Arg Arg Ser Ser Ile Gln Asn
 405 410 415
 Val Arg Val Lys Arg Glu Ser Ala Glu Thr Asp Ala Ala Asp Gln Asp
 420 425 430
 Gly Asn Arg Val Ala Ala Glu Asn Thr Lys Gly Thr Glu Pro Ala Ala
 435 440 445
 Asp Gly Val Gly Ser Ser Lys Gln Thr Val Pro Thr Asp Ala Ser Ala
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 <213> Glycine max

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 35 40 45
 Leu Leu Ala His Tyr Gly Leu Leu Gln His Met Gln Val Leu Lys Pro
 50 55 60
 Met Ala Ala Lys Asp Arg Asp Leu Cys Lys Phe His Ala Asp Asp Tyr
 65 70 75 80
 Val Ala Phe Leu Arg Gly Ile Thr Pro Glu Thr Gln Gln Asp Gln Leu
 85 90 95
 Arg Gln Leu Lys Arg Phe Asn Val Gly Glu Asp Cys Pro Val Phe Asp
 100 105 110
 Gly Leu Tyr Ser Phe Cys Gln Thr Tyr Ala Gly Gly Ser Val Gly Gly
 115 120 125
 Ala Leu Lys Leu Asn His Gly Val Cys Asp Ile Ala Ile Asn Trp Ala
 130 135 140
 Gly Gly Leu His His Ala Lys Lys Cys Glu Ala Ser Gly Phe Cys Tyr
 145 150 155 160
 Val Asn Asp Ile Val Leu Ala Ile Leu Glu Leu Leu Lys Ile His Glu
 165 170 175

Arg Val Leu Tyr Val Asp Ile Asp Ile His His Gly Asp Gly Val Glu
 180 185 190
 Glu Ala Phe Tyr Thr Thr Asp Arg Val Met Thr Val Ser Phe His Lys
 195 200 205
 Phe Gly Asp Tyr Phe Pro Gly Thr Gly Asp Ile Arg Asp Ile Gly Tyr
 210 215 220
 Ala Lys Gly Lys Tyr Tyr Ser Leu Asn Val Pro Leu Asp Asp Gly Ile
 225 230 235 240
 Asp Asp Glu Ser Tyr Gln Ser Leu Phe Lys Pro Ile Met Gly Lys Val
 245 250 255
 Met Glu Ile Phe Arg Pro Gly Ala Val Val Leu Gln Cys Gly Ala Asp
 260 265 270
 Ser Leu Ser Gly Asp Arg Leu Gly Cys Phe Asn Leu Ser Ile Lys Gly
 275 280 285
 His Ala Glu Cys Val Arg Tyr Met Arg Ser Phe Asn Val Pro Leu Leu
 290 295 300
 Leu Leu Gly Gly Gly Tyr Thr Ile Arg Asn Val Ala Arg Cys Trp
 305 310 315 320
 Cys Phe Glu Thr Ser Val Ala Leu Gly Ile Glu Leu Asp Asp Lys Met
 325 330 335
 Pro Gln His Glu Tyr Tyr Glu Tyr Phe Gly Pro Asp Tyr Thr Leu His
 340 345 350
 Val Ala Pro Ser Asn Met Glu Asn Lys Asn Ser Arg Gln Leu Leu Asp
 355 360 365
 Glu Ile Arg Ala Lys Leu Leu Asp Asn Leu Ser Arg Leu Gln His Ala
 370 375 380
 Pro Ser Val Pro Phe Gln Glu Arg Pro Pro Asp Ala Glu Leu Leu Glu
 385 390 395 400
 Arg Asp Glu Asp Gln Asp Asp Arg Asp Glu Arg Trp Asp Pro Asp Ser
 405 410 415
 Asp Arg Glu Val Gly Asp Asp Ser Asn Pro Val Arg Arg Arg Val Lys
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 Ser Glu Cys Val Asp Ala Glu Asp Lys Asp Thr Val Ser Gly Val Asp
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ggctccaaaa gcntctggca aacctaaccg ggggggctcc gttngggggg gcgtnaaant 480
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 35 40 45
 Ile Arg Met Thr His Ser Leu Leu Ala Gln Tyr Gly Leu Leu Asp Gln
 50 55 60
 Met Gln Val Leu Arg Pro Asn Pro Ala Arg Asp Arg Asp Leu Cys Arg
 65 70 75 80
 Phe His Ala Asp Asp Tyr Ile Ser Phe Leu Arg Ser Val Thr Pro Glu
 85 90 95
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 Glu Trp Pro Val Leu Xaa Gly Leu
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 <211> 513
 <212> PRT
 <213> Zea mays

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Ile	Arg	Met	Thr	His	Ser	Leu	Leu	Ala	Arg	Tyr	Gly	Leu	Leu	Asn	Gln	50	55	60
Met	Gln	Val	Tyr	Arg	Pro	Asn	Pro	Ala	Arg	Glu	Arg	Glu	Leu	Cys	Arg	65	70	75
Phe	His	Ala	Glu	Glu	Tyr	Ile	Asn	Phe	Leu	Arg	Ser	Val	Thr	Pro	Glu	85	90	95
Thr	Gln	Gln	Asp	Gln	Ile	Arg	Leu	Leu	Lys	Arg	Phe	Asn	Val	Gly	Glu	100	105	110
Glu	Cys	Pro	Val	Leu	Asp	Gly	Leu	Tyr	Ser	Phe	Cys	Gln	Thr	Tyr	Ala	115	120	125
Gly	Ala	Ser	Val	Gly	Gly	Ala	Val	Lys	Phe	Asn	His	Gly	His	Asp	Ile	130	135	140
Ala	Ile	Asn	Trp	Ser	Gly	Gly	Leu	His	His	Ala	Lys	Lys	Cys	Glu	Ala	145	150	155
Ser	Gly	Phe	Cys	Tyr	Val	Asn	Asp	Ile	Val	Leu	Ala	Ile	Leu	Glu	Leu	165	170	175
Leu	Lys	His	His	Glu	Arg	Val	Leu	Tyr	Val	Asp	Ile	Asp	Ile	His	His	180	185	190
Gly	Asp	Gly	Val	Glu	Glu	Ala	Phe	Tyr	Thr	Thr	Asp	Arg	Val	Met	Thr	195	200	205
Val	Ser	Phe	His	Lys	Phe	Gly	Asp	Tyr	Phe	Pro	Gly	Thr	Gly	Asp	Ile	210	215	220
Arg	Asp	Ile	Gly	His	Ser	Lys	Gly	Lys	Tyr	Tyr	Ser	Leu	Asn	Val	Pro	225	230	235
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Gln	Cys	Gly	Ala	Asp	Ser	Leu	Ser	Gly	Asp	Arg	Leu	Gly	Cys	Phe	Asn	275	280	285
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Asn	Val	Pro	Leu	Leu	Leu	Leu	Gly	Gly	Gly	Gly	Tyr	Thr	Ile	Arg	Asn	305	310	315
Val	Ala	Arg	Cys	Trp	Cys	Tyr	Glu	Thr	Gly	Val	Ala	Leu	Gly	Gln	Glu	325	330	335
Pro	Glu	Asp	Lys	Met	Pro	Val	Asn	Glu	Tyr	Tyr	Glu	Tyr	Phe	Gly	Pro	340	345	350

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 Arg Gln Gln Leu Asp Asp Ile Arg Ser Lys Leu Ser Lys Leu Arg His
 370 375 380
 Ala Pro Ser Val His Phe Gln Glu Arg Val Pro Asp Thr Glu Ile Pro
 385 390 395 400
 Glu Gln Asp Glu Asp Gln Asp Asp Pro Asp Glu Arg His Asp Pro Asp
 405 410 415
 Ser Asp Met Glu Val Asp Asp His Lys Ala Val Glu Glu Ser Ser Arg
 420 425 430
 Arg Ser Ile Leu Gly Ile Lys Ile Lys Arg Glu Phe Gly Glu Asn Ala
 435 440 445
 Thr Arg Val Gln Asp Gly Gly Arg Val Ala Ser Glu His Arg Gly Leu
 450 455 460
 Glu Pro Met Ala Glu Asp Ile Gly Ser Ser Lys Gln Ala Pro Gln Ala
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Pro

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 35 40 45
 Leu Leu Ala His Tyr Gly Leu Leu Gln His Met Gln Val Leu Lys Pro
 50 55 60
 Phe Pro Ala Arg Asp Arg Asp Leu Cys Arg Phe His Ala Asp Asp Tyr
 65 70 75 80
 Val Ser Phe Leu Arg Ser Ile Thr Pro Glu Thr Gln Gln Asp Gln Ile
 85 90 95
 Arg Gln Leu Lys Arg Phe Asn Val Gly Glu Asp Cys Pro Val Phe Asp
 100 105 110

Gly Leu Tyr Ser Phe Cys Gln Thr Tyr Ala Gly Gly Ser Val Gly Gly
 115 120 125
 Ser Val Lys Leu Asn His Gly Leu Cys Asp Ile Ala Ile Asn Trp Ala
 130 135 140
 Gly Gly Leu His His Ala Lys Lys Cys Glu Ala Ser Gly Phe Cys Tyr
 145 150 155 160
 Val Asn Asp Ile Val Leu Ala Ile Leu Glu Leu Leu Lys Gln His Glu
 165 170 175
 Arg Val Leu Tyr Val Asp Ile Asp Ile His His Gly Asp Gly Val Glu
 180 185 190
 Glu Ala Phe Tyr Ala Thr Asp Arg Val Met Thr Val Ser Phe His Lys
 195 200 205
 Phe Gly Asp Tyr Phe Pro Gly Thr Gly His Ile Gln Asp Ile Gly Tyr
 210 215 220
 Gly Ser Gly Lys Tyr Tyr Ser Leu Asn Val Pro Leu Asp Asp Gly Ile
 225 230 235 240
 Asp Asp Glu Ser Tyr His Leu Leu Phe Lys Pro Ile Met Gly Lys Val
 245 250 255
 Met Glu Ile Phe Arg Pro Gly Ala Val Val Leu Gln Cys Gly Ala Asp
 260 265 270
 Ser Leu Ser Gly Asp Arg Leu Gly Cys Phe Asn Leu Ser Ile Lys Gly
 275 280 285
 His Ala Glu Cys Val Lys Phe Met Arg Ser Phe Asn Val Pro Leu Leu
 290 295 300
 Leu Leu Gly Gly Gly Gly Tyr Thr Ile Arg Asn Val Ala Arg Cys Trp
 305 310 315 320
 Cys Tyr Glu Thr Gly Val Ala Leu Gly Val Glu Val Glu Asp Lys Met
 325 330 335
 Pro Glu His Glu Tyr Tyr Glu Tyr Phe Gly Pro Asp Tyr Thr Leu His
 340 345 350
 Val Ala Pro Ser Asn Met Glu Asn Lys Asn Ser Arg Gln Met Leu Glu
 355 360 365
 Glu Ile Arg Asn Asp Leu Leu His Asn Leu Ser Lys Leu Gln His Ala
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 Pro Ser Val Pro Phe Gln Glu Arg Pro Pro Asp Thr Glu Thr Pro Glu
 385 390 395 400
 Val Asp Glu Asp Gln Glu Asp Gly Asp Lys Arg Trp Asp Pro Asp Ser
 405 410 415
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Arg Glu Ala Val Glu Pro Asp Thr Lys Asp Lys Asp Gly Leu Lys Gly
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Ile Met Glu Arg Gly Lys Gly Cys Glu Val Glu Val Asp Glu Ser Gly
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Ser Thr Lys Val Thr Gly Val Asn Pro Val Gly Val Glu Glu Ala Ser
465 470 475 480

Val Lys Met Glu Glu Glu Gly Thr Asn Lys Gly Gly Ala Glu Gln Ala
485 490 495

Phe Pro Pro Lys Thr
500
